

≡ SERIES AND PARALLEL PUMPS

H52

Benchtop test set that allows students to investigate the operation and performance of a single centrifugal pump and two centrifugal pumps configured in series or parallel.



KEY FEATURES

- Self-contained, compact, benchtop, easy-to-use test set for a range of experiments and demonstrations
- Easily configurable system to enable pumps to be tested individually, in series and in parallel, with a manually adjustable water flow rate
- Long-life, robust valves with large handles allow students to change the water circuit in seconds, ready for the next experiment.
- Includes pressure gauges to measure intake and delivery pressures
- Discharge flow measurement

LEARNING OUTCOMES

Comprehensive demonstrations and investigations into a centrifugal pump including:

- Centrifugal pump performance and characteristics, typically: head versus flow rate and efficiency versus flow rate
- Operation of centrifugal pumps in series
- Operation of centrifugal pumps in parallel
- Suction tests of a single pump
- Demonstration of cavitation
- Determination of water horsepower (WHP)

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DESCRIPTION

A compact, benchtop and fully self-contained centrifugal pump test set, that allows students to find the characteristics of centrifugal pumps, working alone or in series or parallel.

The apparatus comprises two identical centrifugal pumps, together with two bearing-mounted motors driving each pump independently. The pumps draw water from the clear acrylic reservoir. The water travels through a series of valves to be delivered to a flow measurement device. The water then returns to the reservoir for re-use, keeping water use to a minimum.

There are pressure gauges fitted in the intake and delivery pipes for the direct measurement and visible display of the inlet and outlet pressures of the pumps. The adjustable inlet and delivery valves allow students to create different operating conditions.

STANDARD FEATURES

- Supplied with a comprehensive user guide
- Five-year warranty
- Made in accordance with the latest European Union directives

OPTIONAL ANCILLARIES

- Stroboscope (ST1)

SPECIFICATIONS

TecEquipment is committed to a programme of continuous improvement; hence we reserve the right to alter the design and product specification without prior notice.

APPROXIMATE NETT DIMENSIONS AND WEIGHT:

- 1040 mm (width); 572 mm (depth); 740 mm (height)
- Approximately 50 kg (weight – tank empty)

ESSENTIAL SERVICES

ELECTRICAL SUPPLY: (SPECIFY ON ORDER)

- Single Phase, 220-240 VAC, 50 Hz, 6 Amp

OR

- Single Phase, 110-120 VAC, 60 Hz, 12 Amp

OR

- Single Phase, 220 VAC, 60 Hz, 6 Amp

OPERATING CONDITIONS

OPERATING ENVIRONMENT:

Laboratory environment

STORAGE TEMPERATURE RANGE:

-25°C to +55°C (when packed for transport)

OPERATING TEMPERATURE RANGE:

+5°C to +40°C

OPERATING RELATIVE HUMIDITY RANGE:

30% to 95% (non-condensing)